

#### MACHINE LEARNING TRAINING + INTERNSHIP PROGRAM

#### **COURSE DETAILS:**

1. Duration: 1 month Training+ Hands-on + Internship

2. Timings: 7:30 PM to 8:30 PM

3. Fee: INR 699 ONLY

4. BENEFITS: Course completion certificate + Internship Certificate

5. START DATE: 27TH DEC,2022

REGISTER AT: https://forms.gle/hCN8VYcgu7ExW3cS8



#### SCHEDULE DESIGNED FOR THE COURSE:

The main objectives of the course is to prepare the students to become industry/job - ready by doing industry real time projects and learning in the real time environment by the industry professionals

**Course outcomes:** To understand a wide variety of learning algorithms. Understand how to evaluate models generated from data. Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models.

## Day 0:

- 1) Introduction to python required for Machine Learning.
- 2) Introduction to Data Science.
- 3) NumPy and it's functionalities.

## **Day 1:**

- 1) Dealing with Datasets (Creating, Importing).
- 2) Handling Datasets using NumPy.
- 3) Introduction to Pandas.
- 4) Handling Datasets using Pandas (DataFrames, Series).



#### **Day 2: (LAB)**

- 1) Solving problems of Real-Time examples.
- 2) SetUp of GitHub and LinkedIn.
- 3) Exploring GitHub.

#### Day 3:

- 1) Introduction to Matplotlib.
- 2) Exploring different types of graphs and its uses.
- 3) Handling graphs.

## **Day 4:**

- 1) Introduction to Machine Learning and its types.
- 2) Cross Validation.
- 3) Confusion Matrix (Sensitivity and Specificity).
- 4) Introduction to Entropy.

# **Day 5:**

- 1) Linear Regression.
- 2) ROC and AUC.
- 3) Logistic Regression.

## Day 6: (LAB)

- 1) Applying Linear Regression using sklearn.
- 2) Applying Logistic Regression using sklearn. Includes Data Collection, Data Analysis, Data Training, Data Fitting, Data Prediction.



#### **Day 7: (LAB)**

- 1) Exploring Packages in Python.
- 2) tkinter.
- 3) Pillow (Image Processing).
- 4) Creating a GUI application.

# Day 8,9,10: (Project-1)

## Character Recognition using sklearn.

1) Creating a GUI application which will detect the character written by a human.

## **Day 11: (LAB)**

- 1) Analysing the Data.
- 2) Cleaning and Transformation of Dataset.
- 3) Converting raw dataset into useful or knowledgeable data.

## Day 12,13: (Project-2)

1) Bitcoin or money Prediction by daily basis of Stock Market.

## Day 14,15:

## **Exploring other machine learning algorithms**

- 1) Ridge and Lasso.
- 2) Ada Boost.
- 3) SVM (Support Vector Machine).
- 4) Decision Tree.

## **Comparing all Algorithms.**



## Day 16,17:

- 1) Random Forest.
- 2) Gradient Boost.
- 3) XA Boost.
- 4) KNN (k-nearest neighbours).
- 5) Clustering (Unsupervised).

## Day 18,19: (Project-3)

1) Cricket Match Winner Prediction using past data and comparing with all algorithms.

Day 20: (Conclusion)

REVISE ALL CONCEPTS.